

## REMARKS

Claims 11 to 22 are pending in the application; claim 22 has been added.

### Rejection under 35 U.S.C. 103

Claims 11-14, 16, and 17 stand rejected under 35 U.S.C. 103 (a) as being unpatentable over *Stentenbach* (U 5,208,946) and *Patelli et al.* (US 5,745,956).

Claim 11 has been amended by incorporating therein the features of claim 12.

Claim 11 as amended now sets forth sliver conveying and depositing device that comprises:

a first deflection means arranged between the last one of the at least two driven roller pairs and the can coiler;

an arm that is pivotable about a pivot axis wherein the first deflection means is arranged at a free end of the arm;

wherein the sliver is guided across the first deflection means at a deflection angle;

wherein the arm exerts a counter pressure onto the sliver for maintaining a sliver tension;

wherein the first deflection means is displaceable for compensation of a length of the sliver and has a first end position and a second end position;

signal transducers for emitting a signal when the first end position or the second end position of the first deflection means has been reached, respectively;

means for changing a speed of a can coiler drive when one of the signal transducers emits the signal, wherein a time interval elapsed since the last signal has been emitted by one of the signal transducers is taken into account for changing the speed;

wherein two of the signal transducers are arranged slightly displaced relative to one another for detecting the first end position and for detecting the second end position, respectively.

*Stentenbach* discloses a can coiler with sliver conveying and depositing device (examiner refers to Fig. 1, elements above detail 12) across which the sliver 3 is guided. The reference is silent as to the embodiment of the sliver conveying and depositing device and provides no details as to the arm - there is no indication that the arm is pivotable - no pivot axis is mentioned and no pivoting action is described in connection with the arm

shown above the turntable 2. The only part of the description dealing with the sliver supply to the can above the turntable 2 can be found in col. 4, lines 4-20. Pivoting actions described in this reference refer to the cutting knife 28, the wheel 13, and the polygon profile 57. No pivoting arm as claimed in claim 11 is shown. There is no disclosure as regards a counter pressure being exerted by the arm. *Stentenbach* shows no signal transducers that emit a signal when the first end position or the second end position of the first deflection means has been reached, respectively.

Examiner cites *Patelli et al.* as showing signal transducers in the form of proximity switches. Examiner refers to Fig. 2 of *Patelli et al.* In examiner's opinion it would have been obvious to employ the signal transducers of *Patelli et al.* in the device of *Stentenbach*.

*Patelli et al.* does not show **two sensors** but only **one sensor** for controlling sliver tension. Note that sensors 16 and 20 are used **alternatively** but not together. As explained in col. 2, lines 36 to 49, the rotational movement of rod 14 is measured by the position sensor 16 that generates a signal corresponding to the angular position that rod 14 and bar 11 (Fig. 2) assume as a result of sliver tension. Increasing sliver tension causes bar 11 to rotate counterclockwise (arrow B) and decreasing sliver tension causes clockwise rotation (arrow C).

As set forth in col. 2, line 59, to col. 3, line 4, a **modified embodiment** employs in place of sensor 16 a transducer 20 that generates a signal corresponding to the torsional angular momentum generated by the sliver tension at the bar 11 (see double arrow at sensor 20). Either sensor 16 or sensor 20 measures the sliver tension. These sensors do not measure end positions but an increase or decrease of the sliver tension based either on the vertical displacement of the measuring pin of the sensor 16 resting on the rod 14 or the rotation of the bar 11 and rod 14 about the pivot 12. The transducers do not detect end positions and do not emit a signal when an end position is reached. They have no means of detecting an end position because they simply respond to a change in the rotation angle of the two-arm lever comprised of bar 11 and rod 14.

The two sensors measure the same change of rotation and can be interchangeably

used; using them together makes no sense. These sensors cannot suggest detection of the end position of the sliver tension as they measure the increase or decrease of the tension. Particularly, they cannot suggest the use of two independent sensors for detection of first and second end positions.

Claim 11 as amended is therefore not obvious in view of *Stentenbach and Patelli et al.*

Reconsideration and withdrawal of the rejection of claim 11 and its dependent claims pursuant to 35 USC 103 are therefore respectfully requested.

#### **New claim 22 and Claim 13**

Claim 22 is a combination of the features of claims 11 and 13. It sets forth that the signal transducers for emitting a signal when the first end position or the second end position of the first deflection means has been reached, respectively, are proximity switches. Dependent claim 13 also defines signal transducers as proximity switches.

The arguments presented above in connection with claim 11 apply also in regard to claim 22. The additional feature addressed here are the **proximity switches**.

*Patelli et al* does not disclose proximity switches. Examiner's attention is directed to the enclosed articles (see Siemens -Proximity switches SIMATIC PX - for different types of proximity switches; see Machine Design - Proximity Sensor - for a general explanation of proximity sensors).

Proximity switches (sensors) operate without physical contact, for example, as a capacitive sensor or photoelectric sensor. The sensors of *Patelli et al.* are contact-based: the pin of the sensor 16 rests on the rod 14 or the sensor 20 is connected to the axle on which the two-arm lever (bar11 and rod 14) rotates. Such sensors cannot suggest proximity switches.

Therefore, claim 22 and claim 13 are not obvious on view of the cited prior art combination.

#### **ALLOWABLE SUBJECT MATTER**

Claims 15 and 18-21 stand objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations

of the base claim and any intervening claims.

Claim 15 has been amended to include the features of claims 1 and 14 and should thus be allowable together with dependent claims 12, 16 and 17.

Claim 18 has been amended by incorporating therein the features of claims 1 and 14 and should thus be allowable together with dependent claim 19.

Claim 20 has been amended by incorporating therein the features of claim 1 and should thus be allowable together with dependent claim 21.

#### CONCLUSION

In view of the foregoing, it is submitted that this application is now in condition for allowance and such allowance is respectfully solicited.

The application now contains **five independent claims**; the fee for two extra independent claims (a total of \$200 - small entity) over the number of three is being paid by credit card

Should the Examiner have any further objections or suggestions, the undersigned would appreciate a phone call or **e-mail** from the examiner to discuss appropriate amendments to place the application into condition for allowance.

Authorization is herewith given to charge any fees or any shortages in any fees required during prosecution of this application and not paid by other means to Patent and Trademark Office deposit account 50-1199.

Respectfully submitted on September 14, 2007,

/Gudrun E. Huckett/

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Encl: - Siemens / Proximity Switches SIMATIC PX (23 pages)  
- Machine Design / Proximity Sensor (2 pages)